



Pcounter Rules and Policies User Manual

For Pcounter for Windows version 2.85 and above

About this Document

This document is intended to give a full explanation of all aspects of Pcounter Printing Rules and Policies. It is relevant from version 2.85 and higher, which marks the release of the custom rule builder. For information on Pcounter Rules from earlier version please see [here](#).

Points to Note

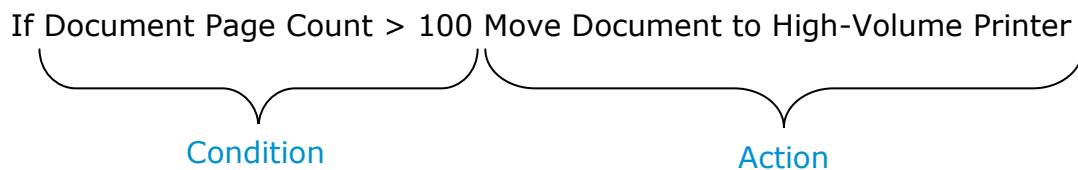
All file locations referenced in this work refer to the drive on which Pcounter is installed on the Pcounter Data Server unless otherwise stated. It is assumed that all users have read access to the contents of the Pcounter share, default location C:\PCOUNTER.

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1. Introduction

A major feature of Pcounter is the ability to perform a certain **Action** to print jobs if those print jobs fulfil certain **Conditions**, for example:



These are known as the **Pcounter Rules**. Rules are applied to print queues, and are created using the **Pcounter Rule Builder**.

Rules can be applied to individual print queues in Pcontrol by right-clicking the **print queue** and selecting **Pcounter > Configuration** followed by the **Rules** tab.

Rules can also be applied to the **Default Printer Template** in Pcontrol by right-clicking the **server** and selecting **Pcounter > Configuration** followed by the **Default printer template/Global rules and policies** link and the **Rules** tab.

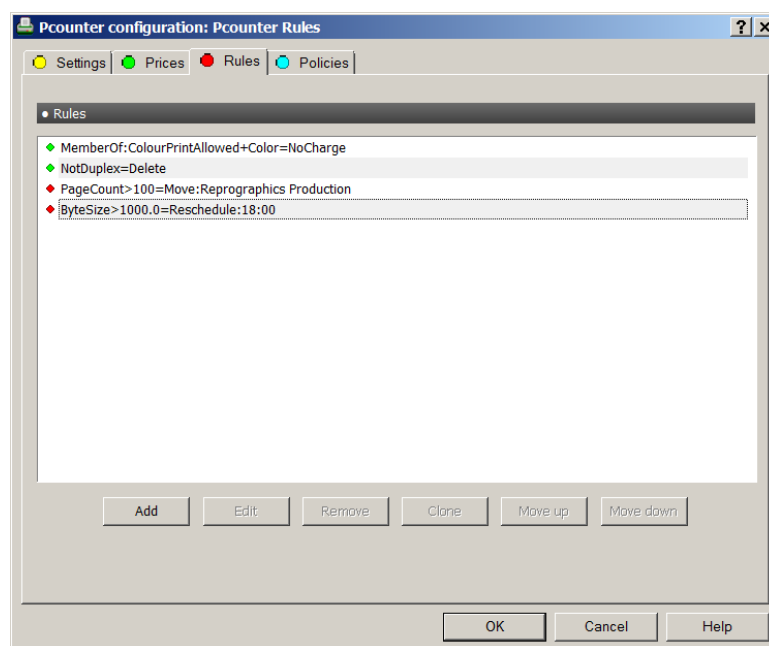
Please note: Any rules applied to the Default Printer Template will apply to all printers.

Please note: Rules applied to the Default Printer Template are processed before any local printer rules.

2. Pcounter Rules

2.1 RULES TAB

The rules tab will list all rules currently applied to that print queue.



Both the **Condition** and **Action** are displayed for all rules.

To add a new rule click **Add**, which will launch the **Rule Builder** (see 2.2).

To edit an existing rule, select it in the list and click **Edit** to launch the Rule Builder (see 2.2).

Important: All rules displayed are processed in a **top-down order**; the first rule whose condition(s) are met will be triggered and the action applied to the job. None of the subsequent rules on the queue will be processed. The processing order of rules can be changed by selecting the rule and pressing **Move Up** or **Move Down**.

To delete a rule, select it and press the **Remove** button.

2.2 PCOUNTER RULES BUILDER

Clicking the **Add** button on the Rules tab will launch the rule builder.

Edit rule

If all conditions are true: Add Remove

Conditions

- ◆ Job is color
- ◆ Job copies are greater than 10
- ◆ User is member of Teaching Staff

MemberOf: Teaching Staff

Action: Move job to printer and pause

Printer: Reprographics Production

Message: Hi %U
Colour print runs of 10 copies or greater are not permitted to %P. Your job "%D" has been redirected to Reprographics.

Substitutions:
%P Printer name %U User name
%D Document name %T Reschedule time

OK Cancel

From the rule builder you can list multiple conditions and a single action, *which is only triggered if all conditions are true* (there is an AND relationship between all conditions).

Example of available conditions:

- If job is/isn't colour
- Page count < or > [X]
- User is a member of [Some AD security group]

Example of available actions:

- Delete job
- Reschedule job
- Move to another printer

Please note: A full list and detailed discussion on each available condition and action is included in the [Appendix](#) of this document.

2.2.1 Building a Rule

To build a new rule

1. Click **Add** and choose your condition from the subsequent menu.
2. If your chosen condition requires **extra parameters** (e.g. value for page count rules, group name for AD group rules etc...) the relevant controls will appear on the builder. Enter the parameter.
 - See **MemberOf:** above
3. If multiple conditions are required click repeat steps 1 and 2
4. Click **Action** and choose your desired action from the subsequent menu.
5. If your chosen action requires extra parameters (e.g. another print queue, a reschedule time) the relevant controls will appear on the builder. Enter the parameter.
 - See **Printer** above
6. Optionally, enter a customized message to be sent to any user who triggers the rule. The displayed substitutions can be used to insert the actual values from the job in question.
 - **Please note:** **Pcounter Messaging** requires **PcounterClient** to be running on all end user workstations to act as a message receiver. This is covered in further detail in the [Pcounter Popup, Pcounter Users and Client Codes](#) manual [section A7](#).
7. Click **Save** when complete to save the rule

The rule will now be visible on the Rules tab and will be processed for all jobs printed to this printer, or to all printers if it has been applied to the Global printer rules.

2.2.2 Editing / Removing a Rule

To edit a rule, right-click it in the list and select **Edit** from the subsequent popup menu. This will launch the rules builder. From here you can change the parameters for each existing condition or remove conditions entirely by right-clicking this from the list and selecting **Remove**.

To remove a rule completely, right-click it in the list and select **Remove** from the subsequent popup menu.

2.3 ENFORCED RULES LOG

All **Pcounter Rules** that are triggered are recorded in a dedicated log file, the **Enforced Rules log**. See section [6.2](#) for full details.

2.4 AT WHAT STAGE TO TRIGGER A RULE

Within the available conditions there are two specific conditions that allow you to determine at what point in the lifecycle of the print job is the rule applied. This is an important consideration for all rules as it can dramatically affect the end-user experience.

Please note: these conditions only appear in the conditions menu once another condition has been enabled first.

Please note: these two conditions are mutually exclusive.

2.4.1 At printing time only

At printing time only will cause the rule to trigger as the server prepares to send the job to the printer. If a job is paused prior to being printed the rule will only trigger after the pause is removed.

It is recommended to use this condition on rules applied to any direct print queue.

2.4.2 During pre-count only

During pre-count only will cause the rule to trigger when performing the Pcounter Pre-count, which is a setting associated with pull printing and Ppopup/PcounterClient. See [Pcounter Popup, Pcounter Users & Client Codes User Manual](#) section [A2.2](#) for more info on the pre-count.

It is recommended to use this condition on rules applied to a Pcounter Visible Pull Queue.

Please note: applying such a rule to a Pcounter Hidden Queue will be ineffective.

Please note: the setting **Count jobs in advance for display** must be enabled in order for During pre-count to work.

3. Pcounter Policies

Pcounter Policies are similar to Pcounter Rules in that they are used to enforce certain actions based on conditions/properties of print jobs sent to them, or of the user who sent the job. The major difference here is that using Policies we are able to change properties of the jobs themselves.

3.1 POLICIES AND JOB PROPERTIES

The Policies available, are:

- Color to gray
 - Forces jobs to greyscale
- Turn duplex on
 - Forces jobs to duplex
- Deny Access
 - Deletes the job

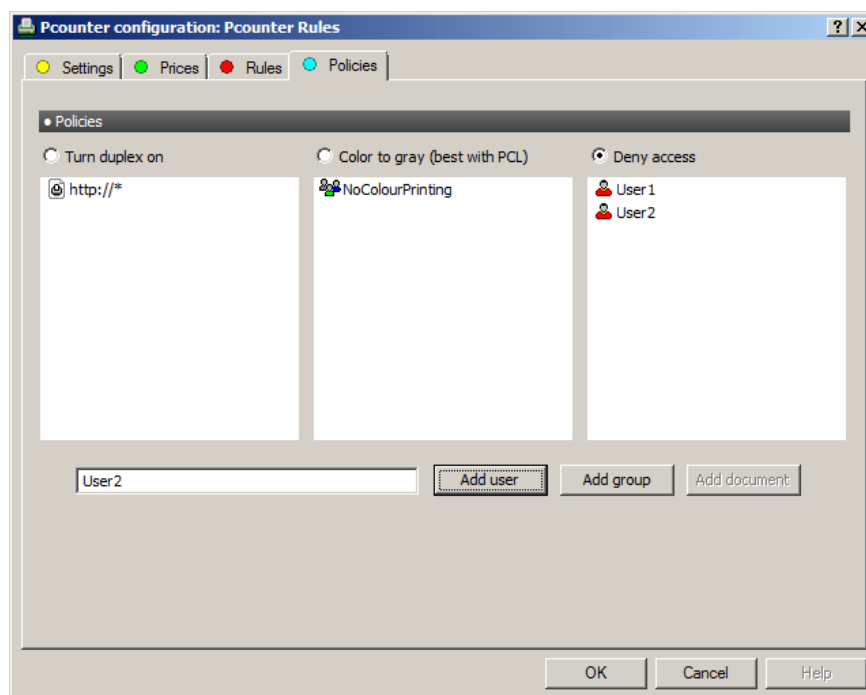
The properties of the jobs/users are

- User
 - Actions can be triggered based on the individual user who sent the job
- Group
 - Actions can be triggered based on AD group membership of the user who sent the job
- Document
 - Actions can be triggered based on the document name – either an exact or partial match. * can be used as a wildcard.

3.2 POLICIES TAB

Policies can be applied to individual print queues in Pcontrol by right-clicking the **print queue** and selecting **Pcounter** > **Configuration** followed by the **Policies** tab.

Policies can also be applied to the **Default Printer Template** in Pcontrol by right-clicking the **server** and selecting **Pcounter** > **Configuration** followed by the **Default printer template/Global rules and policies** link and the **Policies** tab.



3.2.1 Applying a Policy

To apply a policy to the selected printer:

1. Select the **radio button for the policy you wish to apply**
2. Enter the **value** for the user, group or document into the text box
3. Click the **relevant button** to add this value in as the desired object
4. Click **OK** to save and exit

3.2.2 Removing an Object from a Policy

To remove an object from a policy simply right-click it and select **Remove** from the subsequent popup menu.

3.3 POLICY LOGGING

Any job that is deleted as part of the **Deny Access** policy will be recorded in the **Reject.log** file. See section 6.1 for further details.

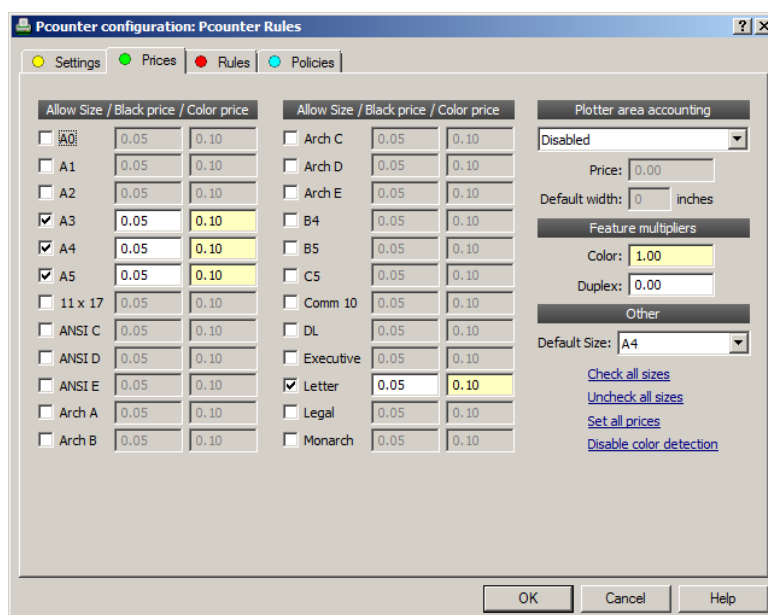
4. Restricting Paper Sizes

Pcounter can restrict certain paper sizes from printing. This is useful in stopping users from sending jobs to a printer in a size that it does not support, which can cause the printer to error until the correct paper is supplied or the job is deleted.

If a paper size is restricted the job will always be **deleted**.

Paper sizes can be allowed/restricted on individual print queues in Pcontrol by right-clicking the **print queue** and selecting **Pcounter > Configuration** followed by the **Prices** tab.

Paper sizes can also be allowed/restricted on the **Default Printer Template** in Pcontrol by right-clicking the **server** and selecting **Pcounter > Configuration** followed by the **Default printer template/Global rules and policies** link and the **Prices** tab.



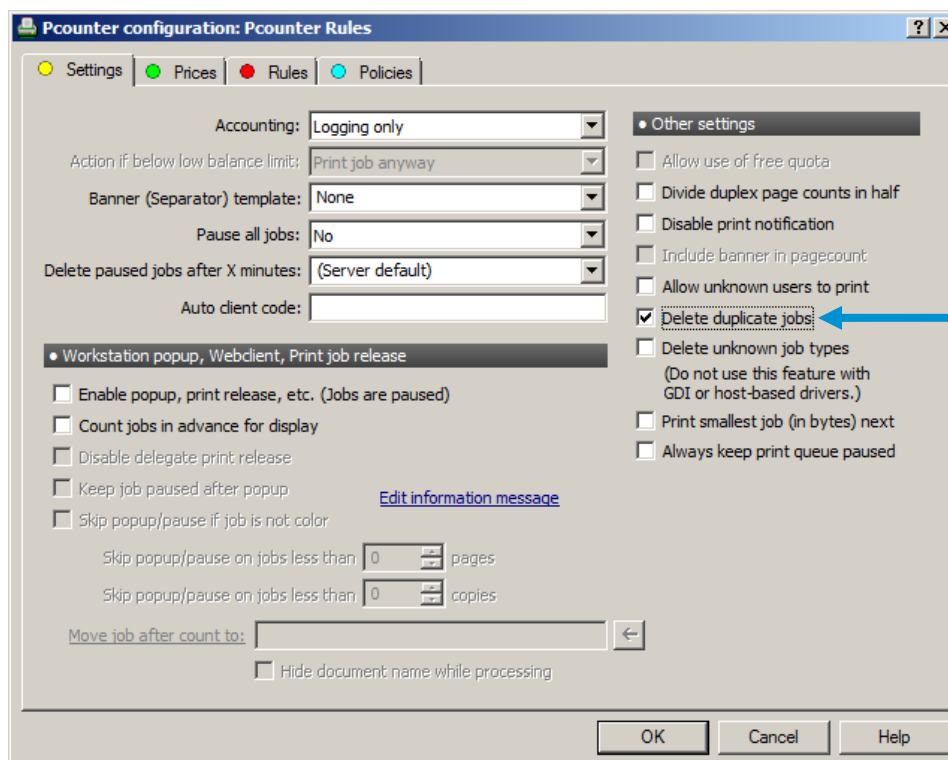
All checked sizes are allowed, all unchecked sizes are restricted.

The deleted job will be recorded in Reject.log with a status of **Invalid paper size [size]**.

5. Delete Duplicate Jobs

Delete duplicate jobs is a unique rule designed to reduce waste from impatient printing.

Again it can be applied to both individual printers or to the Global rules/policies template, and can be found on the **Settings** tab.



With this setting enabled, every print job that is sent to this queue will be compared with every other job *currently in the queue*. If it is deemed to be a duplicate the 2nd job is deleted. The attributes compared to determine if it is a duplicate are:

- Document name
- Job owner (User)
- Byte size

Any deleted job will be recorded in **Reject.log** with a reason of **duplicate job deleted**.

6. Rules Logging

Pcounter keeps two separate log files recording the outcome of the different rules available. These are:

- Reject.log
- enforcedRules.log

6.1 REJECT LOG

The **Pcounter Reject Log** is a dedicated log file that records the job details of all jobs that are legitimately deleted by Pcounter as they have violated a rule, a policy or for some other user defined reason. It *only* records jobs that have been *deleted*, no other rule outcomes are recorded here.

The file is located on the **Pcounter Data Server** at:

C:\PCOUNTER\DATA\Reject.log

Recorded in the log are all the same attributes as recorded in the **Pcounter Print History logs PCOUNTER.log**, along with the **reason** for the deletion (stored in the **Client Code** field).

The best way to view the Reject log is through **Pcounter Administrator > Utility menu > Open log file.**

User	Document	Printer	Date/Time	Computer	Client code	Features	Job Size	Page Count	Cost	Job:Account Balance	Job:Free Quota
vparmar	PStation.PDF	\\LDVVW2K8TEST\SHARP Pull Q Test	30/06/2014 13:56:46	\\WPARMAR-PC	Old job deleted	JobType=UnknownPrint	6821025	24	0.96	0.00	0.00
vparmar	Test Page	\\LDVVW2K8TEST\SHARP Pull Q Test	01/07/2014 13:39:29	\\LDVVW2K8TEST	Old job deleted	JobType=UnknownPrint	53746	1	0.04	0.00	0.00
vparmar	Test Page	\\LDVVW2K8TEST\SHARP Pull Q Test	01/07/2014 14:46:18	\\LDVVW2K8TEST	Deleted by popup	JobType=UnknownPrint	53722	1	0.04	0.00	0.00
vparmar	Test Page	\\LDVVW2K8TEST\SHARP Pull Q Test	01/07/2014 16:44:35	\\LDVVW2K8TEST	Old job deleted	JobType=UnknownPrint	53746	1	0.04	0.00	0.00
cpieper	Test Page	\\LDVVW2K8TEST\SHARP Pull Q Test	03/07/2014 12:50:21	\\LDVVW2K8TEST	Old job deleted	JobType=UnknownPrint	53722	1	0.04	0.00	0.00
vparmar	Test Page	\\LDVVW2K8TEST\YM Pull	03/07/2014 16:17:27	\\LDVVW2K8TEST	Deleted by popup	JobType=UnknownPrint	61838	1	0.05	0.00	0.00
vparmar	Test Page	\\LDVVW2K8TEST\SHARP Pull Q Test	08/07/2014 16:10:44	\\LDVVW2K8TEST	Deleted by popup	JobType=UnknownPrint	53722	1	0.04	0.00	0.00
cpieper	Test Page	\\LDVVW2K8TEST\Samsung Pull	10/07/2014 12:45:42	\\LDVVW2K8TEST	Old job deleted	JobType=UnknownPrint	52273	1	1.00	0.00	0.00
tech	Test Page	\\LDVVW2K8TEST\YM Pull	18/07/2014 11:01:58	\\LDVVW2K8TEST	Old job deleted	JobType=UnknownPrint	61803	1	0.05	0.00	0.00
vparmar	Test Page	\\LDVVW2K8TEST\SHARP Pull Q Test	31/07/2014 09:26:10	\\LDVVW2K8TEST	Deleted by popup	JobType=UnknownPrint	53698	1	0.04	0.00	0.00
vparmar	Test Page	\\LDVVW2K8TEST\SHARP Pull Q Test	31/07/2014 10:44:03	\\LDVVW2K8TEST	Deleted by popup	JobType=UnknownPrint	53722	1	0.04	0.00	0.00
vparmar	Test Page	\\LDVVW2K8TEST\SHARP Pull Q Test	31/07/2014 10:53:39	\\LDVVW2K8TEST	Deleted by popup	JobType=UnknownPrint	53746	1	0.04	0.00	0.00
tech	Test Page	\\LDVVW2K8TEST\Canon R-ADV C5030/S03...	02/09/2014 13:32:17	\\LDVVW2K8TEST	Deleted by popup	JobType=UnknownPrint	41382	1	1.00	0.00	0.00

6.2 ENFORCED RULES LOG

All **Pcounter Rules** that are triggered are recorded in a dedicated log file, the **Enforced Rules log**. The file location for this is:

C:\Windows\SysWOW64\PCOUNTER\enforcedRules.log

The log contains a detailed description of each triggered rule, which will include the following information:

1. Date/time
2. User
3. Print queue
4. All conditions
5. Action

An example of a log file entry is as follows:

```
[1]17/02/2015 13:12:08: [2][cpieper >> [3]Pcounter Rules]  
[4]Color+PageCount<100=[5]Move:Reprographics Production
```

Please note: If a rule action is set to **Delete**, the deletion will still be recorded in the **Pcounter Reject log** as with all deleted jobs. The reason recorded in the Reject log will simply be **Enforced Rule**. To see full details of the rule this will need to be cross referenced with the Enforced Rule log.

FAQ

Q: I cannot uncheck a particular paper size.

A: It is not possible to uncheck a paper size if that size is set as the Default size for that printer. Change the default size on the Prices tab.

Q: Add document is greyed out for the Deny Access policy

A: It is by design that the Deny Access policy cannot be applied to documents based on the document name. If such an action is required it is recommended to build a rule to delete jobs based on Document name contains.

Q: My users are not receiving the messages explaining about the rules that have triggered.

A: In order to receive Pcounter broadcast messages, client PCs need to be running PcounterClient.exe. See the [Pcounter Popup, Users and Client Codes manual](#) page 7 for further details.

Q: Sometimes my users send jobs in A4, which is an allowed paper size, however the job is deleted. Why is this?

A: A4 and Letter paper sizes are essentially the same dimensions. A number of applications are known to report the paper size as Letter when set to USA regional settings. It can be confirmed that this is the problem by checking Reject.log. If this is indeed the case simply enable Letter and set the price to the same as A4.

Q: I have entered, for example "*.doc" as the parameter for Document name contains however this does not work.

A: No wildcards are necessary for document name matching. Because of this the "*" character is being included in the search. Remove the *.

APPENDIX

A1. CONDITIONS FOR PCOUNTER RULES

Please note: all **less than** and **greater than** rules regarding the same attribute are **mutually exclusive**.

Byte size (MB) less than / greater than

This is the size of the spool file and not the source document. Spool files are often much larger than the source document.

Page count less than / greater than

This is the overall page count of the whole job i.e. number of pages x number of copies.

When printing in duplex, each "side" of paper is calculated to be a "page" therefore this is the count of sides and not individual pages, also known as the printer "click count".

Job copies less than / greater than

Job cost less than / greater than

This is the overall cost of the whole job i.e. number of pages x number of copies x cost per page.

Plot dimension less than / greater than

This condition should only be used on print queues that have **plotter area accounting** enabled. The units used are the units set on the plotter area accounting settings.

Job is / is not colour

Job is / is not duplex

Document name contains / does not contain

No wildcards are necessary for this condition as the wildcard would be included in the search term, i.e. a parameter of ".doc" will affect all word documents however "*.doc" will only affect documents whose names contain exactly "*.doc".

Client code contains

No wildcards are necessary for this condition as the wildcard would be included in the search term, i.e. a parameter of "Finance" will affect all the Finance Client Code however a parameter of "F*" will only affect documents whose names contain exactly "F*".

This condition concerns only Client Codes selected using PPopup / PcounterClient, not any Pcounter Autocodes.

Days of the week

Time range

User is a member of

This condition references the user's **memberOf** AD attribute. If the group in question is not listed here the user is not considered to be a member of the group

Always apply action

A2. ACTIONS FOR PCOUNTER RULES

Delete job

The job is deleted before being sent to the printer.

Move job to end of queue

The job is moved to the end of the print queue. This is commonly used to move large print jobs to the end of the queue to give smaller jobs priority during busy periods and avoid a single large job from monopolising the printer.

Pause job

The job remains in the same print queue in a Pcounter **Superpause** state. If using this action there will need to be some method in place for the job to be unpaused.

Move job to printer

Useful for redirecting large jobs to larger more capable/cost effective printers.

Move job to printer and pause

Combines the above two rules, moving a job to a different printer and applying the Pcounter Superpause setting. Typically used to move large jobs to more capable printers that also have some form of print release mechanism.

Do not charge

Will not charge the user for the job, but will still record it in the Pcounter log file.

Reschedule job at

Useful for delaying large print runs or batch jobs until out of hours, freeing up the printer for more immediately needed printing.

During pre-count

See section 2.4.

At printing time only

See section 2.4.